

**Abstract of the Disclosure**

The present invention relates to a method and apparatus for the analysis of single nucleotide polymorphisms (SNP) in a target DNA. The present invention is based on primer extension on preferably amplified gene fragments using labeled, preferably fluorochrome labeled, dideoxynucleotides, thus allowing extension of only one nucleotide. Subsequently, extended primers are hybridized to immobilized antisense oligonucleotides. SNP analysis is then performed using a suitable detection method, preferably a multi-laser scanner, identifying the respective nucleotides by the label, preferably the fluorochrome label, and followed by analysis of the hybridization pattern.